The Navigation Information Sharing Website

The Corps of Engineers Economic and Environmental Analysis Conference

14 April 2004

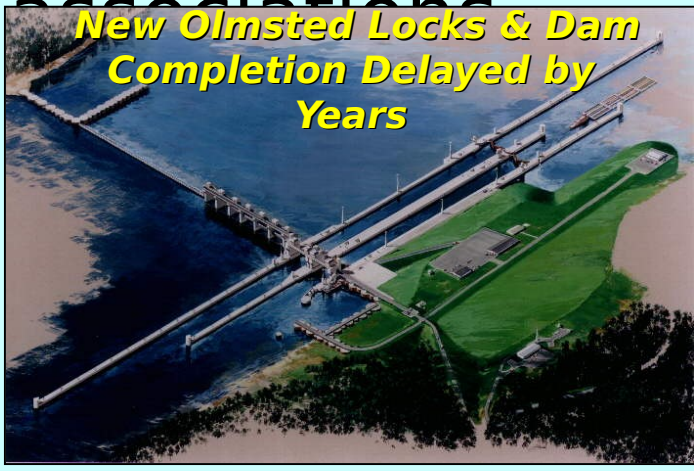
Baltimore, Maryland

Dick Ash, Huntington District

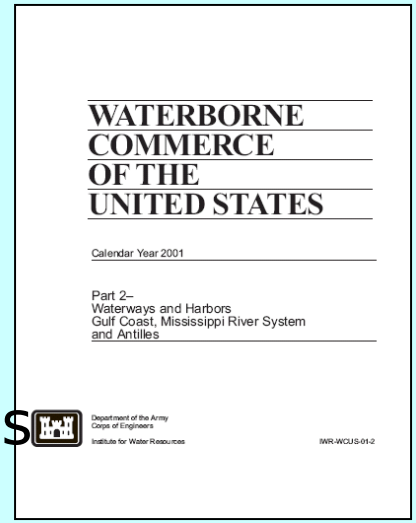
David Grier, IWR

Background & Development

- About $4.4 billion in inland waterway construction and major rehabilitation
- Over $3.1 billion in Ohio River Basin
- Annual funding consistently below capability levels, delaying completions
- DINAMO and other trade associations working to increase Congressional support and funding levels



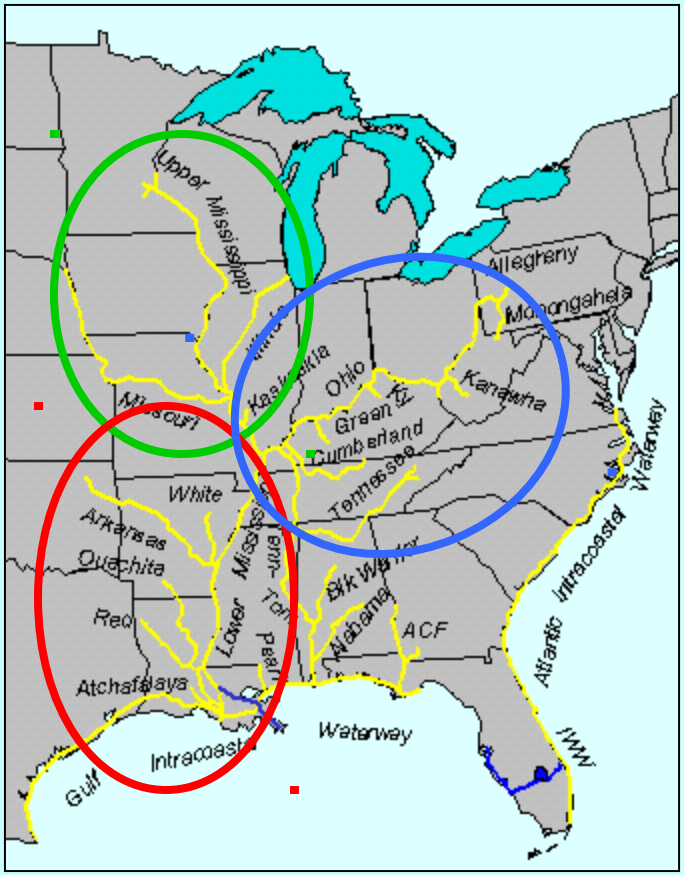
Background & Development



- Dilemma: Much data available
  - Waterborne Commerce Statistics
  - Lock Performance Monitoring System
  - Various TVA transportation rate studies
- In 1999 trade groups asked Huntington District for help to collect, analyze and display Corps navigation data
- Huntington began developing fact sheets, maps, and charts
- “Navigation Outreach” website developed to host Ohio River Basin products

Background & Development

- HQ supportive of “Outreach” effort
- In 2000 provided funds to IWR to coordinate coverage to the rest of inland waterways
- IWR worked with Huntington and contractors to expand to Upper and Lower Mississippi Basins
- Huntington began updating data content and renamed as *Navigation Information Sharing*



Accessing Navigation Information Sharing

Address http://www.lrh.usace.army.mil/ Go Links

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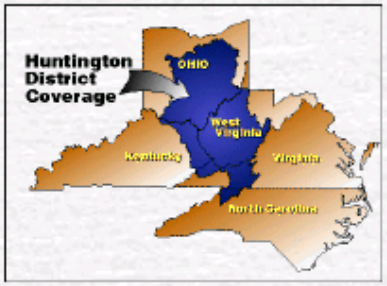


Click on map for a larger, more detailed image

Look for missing Army personnel here

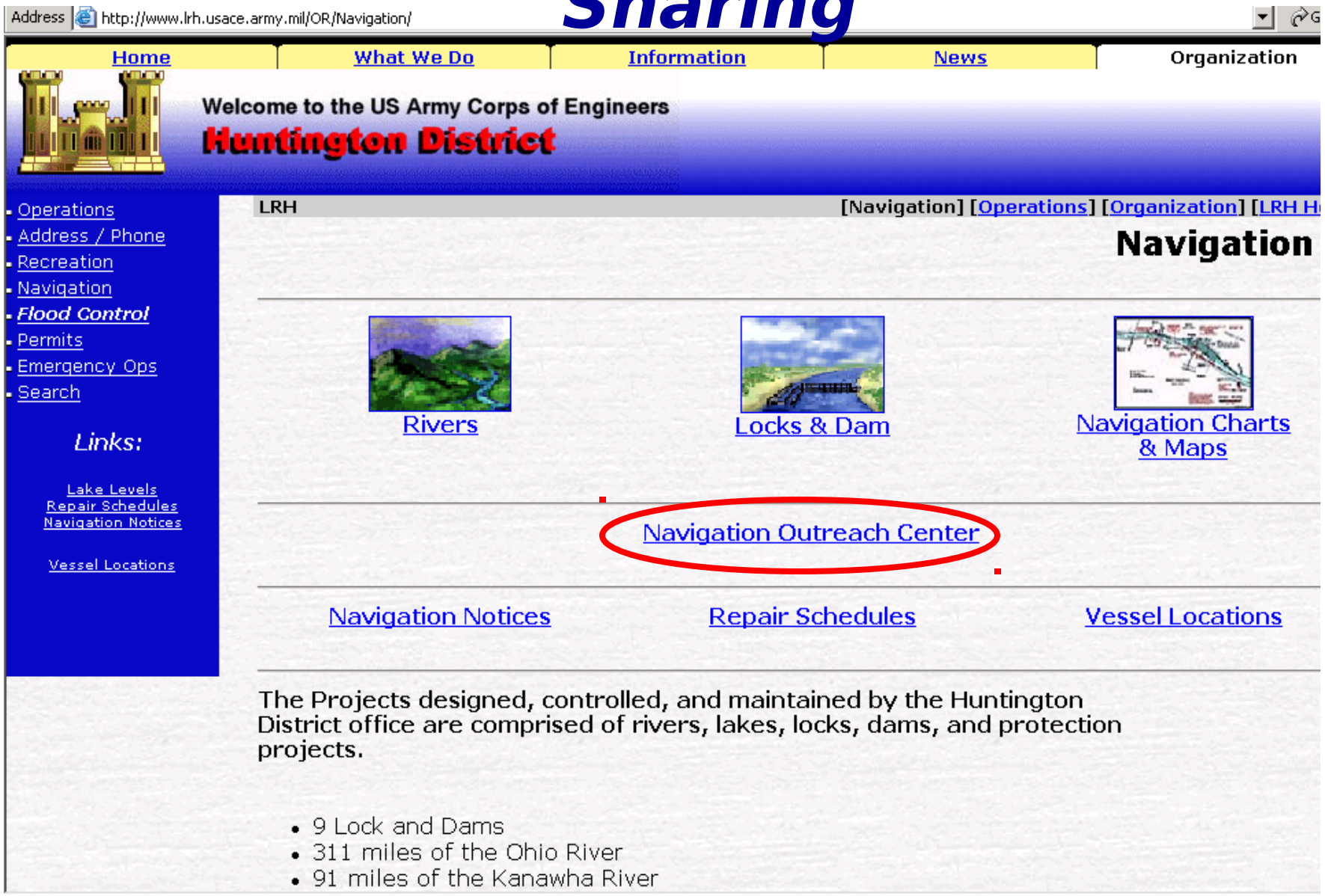
Active Project: — Select Active Project —

Lake Project: — Select Lake —

Lock Project: — Select Lock —

District Profile

Accessing Navigation Information Sharing



Navigation Information Sharing

The Navigation Data Information System

from the U.S. Army Corps of Engineers.

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Information on this website is constantly updated.

This site created and maintained by the Navigation Planning Center of the Huntington District of the U.S. Army Corps of Engineers. The site now includes information on the Ohio River and Upper Mississippi River/Illinois Waterway Basins. Use the pictures or links below to choose the basin of interest to you.

Ohio River Basin

Upper Mississippi/Illinois Basin

Great Lakes

Lower Mississippi/GIWW

All profiles have been updated to 1999 Waterborne Commerce data (the latest year available).

Updated States	Illinois, Indiana, Kentucky, Ohio, Pennsylvania, Tennessee, West Virginia
Updated Congressional District Profiles	Illinois 19, Indiana 8, Indiana 9, Kentucky 1, Kentucky 2, Kentucky 3, Kentucky 4, Ohio 1, Ohio 2, Ohio 6, Ohio 18, Pennsylvania 4, Pennsylvania 12, Pennsylvania 14, Pennsylvania 18, Pennsylvania 20, Tennessee 2, Tennessee 3, Tennessee 5, Tennessee 6, Tennessee 7, Tennessee 8, West Virginia 1, West Virginia 2, West Virginia 3
Updated Detailed Lock Profiles	Chickamauga, Emsworth, Dashields, Montgomery, Greenup, John T. Myers, Kentucky, Marmet, McAlpine, Lower Monongahela River, Olmsted
Updated Basin Profile	Ohio River Basin
Updated Industry Profiles	**Coal**, Aggregates, Chemicals, Grain, Petroleum
One Page Study Profile	Ohio River Main Stem Study
One Page Lock Profiles	Emsworth, Dashields & Montgomery, Greenup, Kentucky, John T. Myers, Lower Monongahela River, Marmet, McAlpine, Olmsted

Click one of the icons below for detailed info on locks, states, industries, and rivers.

Follow this link for information on the entire Ohio River Basin.

Locks

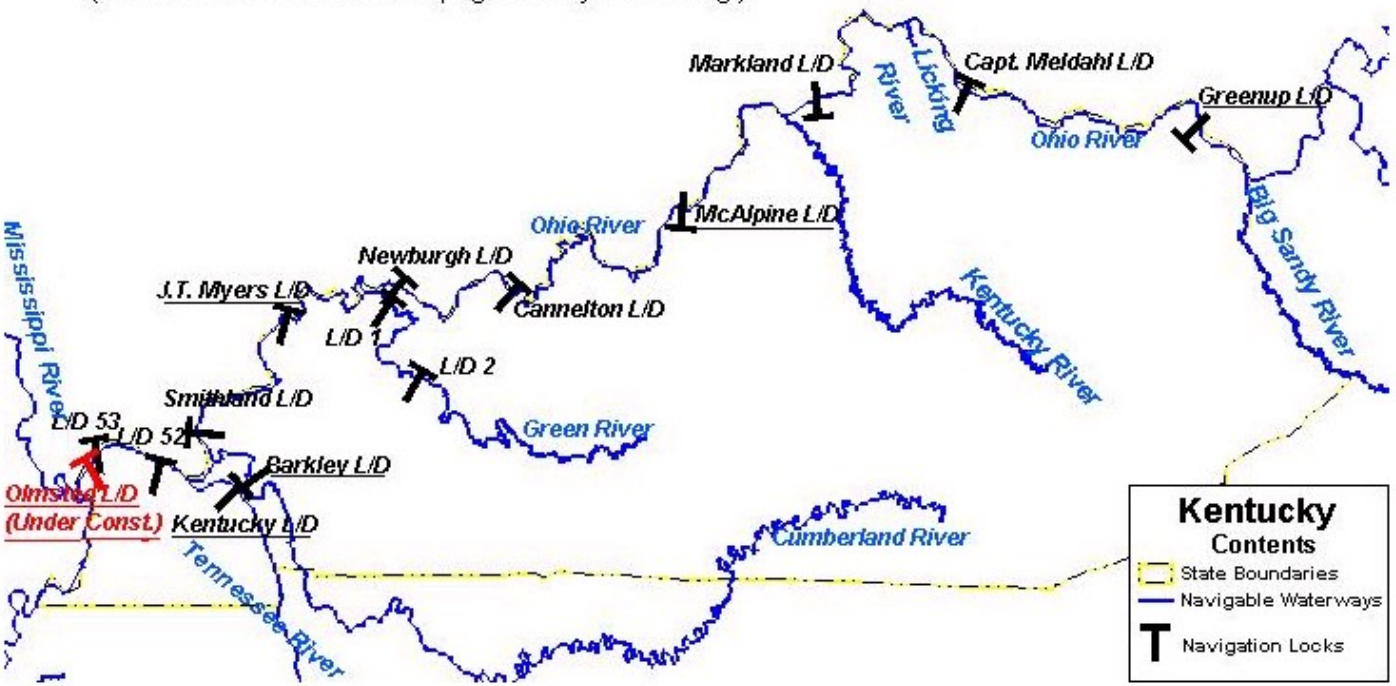
States

Industries

Rivers

Kentucky

(Underlined Locks have webpages ready for viewing.)



Follow this link to the KY Congressional Districts.

Kentucky State Profile

Senators Mitch McConnell, Jim Bunning

Kentucky State Profile

Senators Mitch McConnell, Jim Bunning

The State of Kentucky borders 664 miles of the Ohio River, from mile 318 through mile 981 where the Ohio flows into the Mississippi River. The state also contains 64 miles of the Tennessee River, 102 miles of the Cumberland River, the entire 103 navigable miles of the Green River, and four navigable miles of the Licking River. The 10 navigable miles of the Big Sandy River border eastern Kentucky.

In 2001, over 304 million tons of commodities (mostly coal, petroleum, chemicals and aggregates) moved to, from, within and past Kentucky. These commodities had a combined value of over $44.5 billion. Coal made up 37% of this tonnage, followed by grain movements at 23%.

Kentucky 2001 Waterborne Commerce
To, from and within the State
(Tonnage in Thousands; Values in Millions of Dollars)

Commodity	Shipped	Received	Within	Total	Value
Coal	26,198	16,020	7,067	49,286	$ 1,892
Petroleum	1,987	8,503	645	11,135	$ 1,655
Aggregates	18,002	2,568	5,685	26,257	$ 1,434
Grain	3,301	191	**	3,492	$ 667
Chemicals	475	1,909	7	2,391	$ 790
Ores/Minerals	46	1,463	0	1,509	$ 160
Iron/Steel	1,010	1,764	65	2,839	$ 1,749
Other	2,445	939	871	4,255	$ 780
TOTAL	53,463	33,358	14,341	101,162	$ 9,127

*** Insufficient barge operators to release this tonnage – included in "Other Commodities"*
Source: U.S. Army Corps of Engineers Waterborne Commerce Statistics
Barge movements on Ohio River Basin waterways only

State Profile Tables:
- Commodities
- Trade partner states
- Lock data

An analysis of the Ohio River basin waterborne commerce data for the State of Kentucky shows that 53.4 million tons of commodities were shipped on the river system out of the state. A sizeable portion of this tonnage (26.2million tons) consisted of coal. Docks in the state received nearly 33.3 million tons, with coal again being the largest commodity. More than 14 million tons moved within the state. In 2001, the 101.1 million tons shipped to, from and within Kentucky had a value of $9.1 billion.

Kentucky docks shipped commodities by barge to 17 states, and received commodities from 15 states. The leading state shipped to was Tennessee, which received over 14 million tons of material (primarily coal) worth $720 million. The leading state shipping by barge to Kentucky was West Virginia, which transported 13.6 million tons. Louisiana shipments of high-value commodities such as ores, petroleum, aggregates and chemicals to and from Kentucky were worth over $2.3 billion.

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Kentucky docks shipped commodities by barge to 17 states, and received commodities from 15 states. The leading state shipped to was Tennessee, which received over 14 million tons of material (primarily coal) worth $720 million. The leading state shipping by barge to Kentucky was West Virginia, which transported 13.6 million tons. Louisiana shipments of high-value commodities such as ores, petroleum, aggregates and chemicals to and from Kentucky were worth over $2.3 billion.

Kentucky - 2001 Commodities Moved by Barge To and From Other States
(tonnage in thousands; values in millions of dollars)

Shipments To	Commodity			Shipments From	Commodity		
	Tons	Value	Top		Tons	Value	Top
Tennessee	14,324	$ 720	Coal	West Virginia	13,605	$1,107	Coal
Louisiana	11,298	$1,179	Limestone	Louisiana	7,036	$1,277	Petroleum
Ohio	9,177	$ 542	Coal	Illinois	4,735	$ 313	Limestone
Alabama	5,415	$ 260	Coal	Indiana	2,064	$ 168	Aggregates
Indiana	3,364	$ 226	Aggregates	Pennsylvania	1,164	$ 88	Coal

Source: U.S. Army Corps of Engineers Waterborne Commerce Statistics
Shipments on Ohio River Basin Waterways Only

There were 237 manufacturing facilities, terminals, and docks in Kentucky that shipped and received tonnage in 2001 (see map). The Port of Louisville, which includes 16 miles of the Ohio River (miles 601 to 616) shipped and received over 9 million tons of commodities in 2001, making it the 4th largest port in the Ohio River Basin.

More coal is moved by water in the Ohio River Basin than any other commodity. Over 30 million tons of Kentucky coal is shipped by barge to 34 power plants in the basin and to 11 plants elsewhere in the country. As reflected on the map, 11 power plants in Kentucky receive coal by barge. These plants received more almost 20 million tons of coal in 2001.

There are 14 navigation locks and dams in Kentucky (see map). There are ten active projects on the Ohio River: Lock and Dam 53, Lock and Dam 52, Smithland, John T. Myers, Newburgh, Cannelton, McAlpine, Markland, Meldahl and Greenup. Kentucky waterways also include Kentucky Lock and Dam on the Tennessee River, Barkley Lock and Dam on the Cumberland River and Locks and Dams 1 and 2 on the Green River.

Ground was broken on Olmsted Locks and Dam in 1996. Locks and Dam 52 and 53 will be replaced with a single facility consisting of twin 110' x 1200' lock chambers and a submersible dam for a total cost of $1 billion. The benefit/cost ratio is 3.7 to 1. The locks are scheduled for completion in 2001, with the entire project to be completed in 20011. Congress appropriated $65 million for construction work in fiscal year 2003.

Kentucky 2001 Lock Tonnage *(in thousands of tons)*			
Lock	Upbound	Downbound	Total
Lock & Dam 52	56,070	40,646	96,716
Lock & Dam 53	44,200	42,885	87,085
Smithland	45,713	40,201	85,915
John T. Myers	46,613	28,678	75,290
Newburgh	42,804	23,724	66,528
Cannelton	31,709	24,944	56,653
McAlpine	31,524	24,647	56,171
Markland	25,981	29,827	55,808
Meldahl	21,229	42,583	63,813
Greenup	31,524	24,647	70,564
Kentucky	19,476	8,262	27,738
Barkley	6,899	1,500	8,399
Green River L/D 1	4,778	2,422	7,200
Green River L/D 2	3,250	1,071	4,321
Source: U.S. Army Corps of Engineers Lock Performance Monitoring System			

The hyperlinks below enable downloading of the Word file containing the profile text on the State, each Congressional District, and the bitmap and jpeg graphics files containing the maps. To download a file, right click on the hyperlink, then choose "Save Target As" or a similar command to save the file.

Download KY Word Document: (text only) (with maps); KY Map with Docks: (bitmap) (jpeg); KY Map with Locks: (bitmap) (jpeg); KY State Tonnage Map: (bitmap) (jpeg)

Download KY01 Word Document: (text only) (with maps), KY01 Map with Locks: (bitmap) (jpeg); KY01 Map with Docks: (bitmap) (jpeg)

Download KY02 Word Document: (text only) (with maps); KY02 Map with Locks: (bitmap) (jpeg); KY02 Map with Docks: (bitmap) (jpeg)

Download KY03 Word Document: (text only) (with maps); KY03 Map with Locks: (bitmap) (jpeg); KY03 Map with Docks: (bitmap) (jpeg)

Download KY04 Word Document: (text only) (with maps); KY04 Map with Locks: (bitmap) (jpeg); KY04 Map with Docks: (bitmap) (jpeg)

Send comments or requests for more information to Dick Ash at Dicka@Lrh.usace.army.mil

Congressional District Level

Click on your district for further information.

Information available on KY district 01, KY district 02, KY district 03, and KY district 04.

Kentucky District 1 – Congressman Ed Whitfield

Kentucky's 1st Congressional District encompasses a vital part of America's inland navigation system (see map). Bordered by the Mississippi River on the west, the Ohio River on the north, and trisected by the Cumberland, Tennessee, and Green Rivers, this congressional district is situated at the hub of America's most industrialized and agricultural region: the area from Pittsburgh to Minneapolis/St. Paul, to Kansas City to New Orleans.

More tonnage in shallow-draft barges transits the area bounded by Congressional District 1 than any other portion of the nation's inland navigation system. In 1999, over 241 million tons of commodities moved into, out, within or past this district. These commodities had a combined value of almost $42 billion. Grain comprised about 30% of the district traffic. Coal was the second leading shipment, representing 28% of the traffic.

Every year, more than 90 million tons of commodities pass through the Lower Ohio River. In 1999, over 45 million tons (such as coal, limestone and corn) moved from the Ohio River onto the Mississippi River; almost 45 million tons (such as gasoline, minerals and coal) moved from the Mississippi onto the Ohio.

Kentucky Congressional District 1
1999 Commodities Moved by Barge
(values in millions of dollars)

Commodity	Shipped	Received	Within	Total	Value
Coal	19,410,929	1,984,705	**	21,395,634	$ 823
Petroleum	277,909	2,324,666	0	2,602,575	$ 297
Aggregates	14,917,350	533,311	919,986	16,370,647	$ 1,045
Grain	1,000,154	**	0	1,000,154	$ 143
Chemicals	161,420	790,625	**	952,045	$ 296
Ores/Minerals	**	497,706	0	497,706	$ 21
Iron & Steel	129,698	168,825	0	298,523	$ 169
Others	52,863	314,711	428,561	796,135	$ 129
Total	35,950,323	6,614,549	1,348,547	43,913,419	$ 2,923

*** Insufficient barge operators to release this tonnage – included in "Other Commodities"*
Source: U.S. Army Corps of Engineers Waterborne Commerce Statistics

An analysis of the waterborne commerce data for the 1st Congressional District of Kentucky shows that almost 36 million tons of commodities were shipped on the river system out of the district. A sizeable portion of the tonnage (15.6 million tons) consisted of coal and aggregates

At John T. Myers Locks and Dam, major repairs of the main chamber associated with heavy use and age force greater future reliance on the inadequately-sized auxiliary chamber. This results in accelerating transit costs. The John T. Myers and Greenup Locks Improvements Interim Feasibility Report, a product of the Ohio River Mainstem Study, recommends a 600' extension of the auxiliary chamber and a miter gate quick changeout system at John T. Myers Locks and Dam. This project was authorized for construction in the Water Resources Development Act of 2000. The total cost is expected to be $182 million, with $2.2 million appropriated in fiscal year 2001 to begin design work. The benefit/cost ratio is 2 to 1.

Ground was broken in October of 1999 on a new 110' x 1200' lock at Kentucky Lock. Completion is scheduled for 2008-2012 depending on funding; the total cost will be approximately $533 million, with a benefit/cost ratio of 2.4 to 1. The existing 110' x 600' lock will continue to be used as an auxiliary. Kentucky Lock and Dam's current single lock chamber is insufficient to handle increasing tonnage. The lack of an auxiliary chamber forces tows to use Barkley Lock during periods of extended delays and closures. Kentucky Lock is at 90% capacity and tows face average delays of 5 to 6 hours. $30 million was appropriated for work on Kentucky Lock's new chamber in fiscal year 2001.

Kentucky Congressional District 1
1999 Lock Tonnage
(in thousands of tons)

LOCK	UPBOUND	DOWNBOUND	TOTAL
Locks & Dam 53	46,653	41,161	87,814
Locks & Dam 52	56,432	38,690	95,122
Smithland	43,638	43,958	84,601
John T. Myers	44,633	32,241	74,154
Newburgh	43,059	24,397	64,129
Kentucky	22,162	10,189	33,353
Barkley	7,966	1,796	9,648
Green River L/D 1	2,456	2,517	4,766
Green River L/D 2	1,393	580	2,112

Source: U.S. Army Corps of Engineers Lock Performance Monitoring System

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Download: KY01 Word Document (text only) (with maps); KY01 Map with Locks (bitmap) (jpeg); KY01 Map with Docks (bitmap) (jpeg).

John T. Myers Locks & Dam

Click image for larger picture.

Louisville District's John T. Myers Locks and Dam information page.

Detailed project information (Supplied by the Corps' Digital Project Notebook (DPN)).

(Note: These links take you away from our site. Click on the Back button in your browser to return to this page.)

Click these links for a one-page fact sheet with 1999 data: HTML version MS-Word version

John T. Myers Locks and Dam are located at mile 845.9 of the Ohio River. The locks were opened in 1969 and the dam was completed in 1975. The project replaced Lock and Dams 47, 48 and 49 on the Ohio River. The main lock chamber is 110' x 1200' and the auxiliary chamber is 110' x 600'. The project is located about 3 ½ miles downstream of Uniontown Kentucky and was originally named Uniontown Locks and Dam. The project was renamed in honor of Indiana Congressman John T. Myers in 1996.

At John T. Myers Locks and Dam, major repairs of the main chamber associated with heavy use and age force greater future reliance on the inadequately-sized auxiliary chamber. This results in accelerating transit costs. The John T. Myers and Greenup Locks Improvements Interim Feasibility Report, a product of the Ohio River Mainstem Study, recommends a 600' extension of the auxiliary chamber and a miter gate quick changeout system. This project was authorized for construction in the Water Resources Development Act of 2000. The expected cost is $225 million and has a benefit/cost ratio of 1.8 to 1. Design work will continue in fiscal year 2003 with $1.3 million appropriated by Congress.

John T. Myers Locks - 2001 Commodity Distribution
(Tonnage in Thousands; Values in Millions of Dollars)

Commodity	Tonnage	Percent	Value	Percent
Coal	32,892	44%	$ 1,305	9%

Lock Data

- *Commodity*
- *Tons*
- *Estimated Value*
- *Trade Partner States*

John T. Myers Locks - 2001 Commodity Distribution
(Tonnage in Thousands; Values in Millions of Dollars)

Commodity	Tonnage	Percent	Value	Percent
Coal	32,892	44%	$ 1,305	9%
Petroleum	7,438	10%	$ 926	7%
Aggregates	2,240	3%	$ 81	1%
Grain	8,902	12%	$ 1,500	11%
Chemicals	6,875	9%	$ 2,807	20%
Ores/Minerals	5,346	7%	$ 498	4%
Iron/Steel	9,026	12%	$ 4,148	30%
Other	2,367	3%	$ 2,580	19%
TOTAL	75,087		$13,845	

Source: U.S. Army Corps of Engineers Waterborne Commerce Statistics

Commodity shipments through John T. Myers Locks have increased since 35 million tons were transported in 1970. According to the Corps of Engineers Waterborne Commerce Statistics for 2001, over 75 million tons of commodities were shipped through this project. These shipments had a combined value of $13.8 billion. 44% of the lock's tonnage was coal and most went to 31 power plants in 8 states. Grains, iron and steel products were next, totaling almost one-fourth of the tonnage. These products had a combined commodity value of over $5.6 billion.

The state that shipped the most tonnage through John T. Myers Locks was Louisiana, transporting over 20 million tons. High value commodities such as iron ore, aluminum ore and petroleum coke made the value of Louisiana barge shipments about one-third of the total value of John T. Myers traffic. These movements were destined for Ohio and Kentucky. Some of the Louisiana shipments are imports received in deep-water ports and transloaded onto barges. Most of the shipments to Louisiana were barges of corn and soybeans from Indiana, Ohio and Kentucky bound for export.

John T. Myers Locks 2001 Barge Tonnage Shipped and Received by States
(Tons in Thousands; Values in Millions of Dollars)

Shipments From	Tons	Value	Top Commodity	Shipments To	Tons	Value	Top Commodity
Louisiana	20,009	$4,554	Iron/Steel	Indiana	16,105	$1,463	Coal
Illinois	19,384	$1,089	Coal	Kentucky	13,317	$1,921	Coal
Kentucky	11,326	$1,859	Coal	Louisiana	13,195	$1,820	Grain
Indiana	6,962	$1,316	Corn	Ohio	9,757	$2,028	Iron/Steel
West Virginia	6,536	$ 989	Coal	Tennessee	4,743	$ 631	Coal

Source: U.S. Army Corps of Engineers Waterborne Commerce Statistics

Louisiana District 3 contains most of the Lower Mississippi River below Baton Rouge and is a major area for transloading of imports and

(Tons in Thousands; Values in Millions of Dollars)

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Indiana	6,962	$1,316	Corn	Ohio	9,757	$2,028	Iron/Steel
West Virginia	6,536	$ 989	Coal	Tennessee	4,743	$ 631	Coal

Source: U.S. Army Corps of Engineers Waterborne Commerce Statistics

Louisiana District 3 contains most of the Lower Mississippi River below Baton Rouge and is a major area for transloading of imports and exports between ships and barges. Illinois District 19 borders approximately 100 miles of the Ohio River just below John T. Myers Locks, and coal shipments from its docks move mostly upbound to 17 power plants. Four of the plants are in Indiana District 9, which is upstream of the project.

John T. Myers Locks 2001 Barge Tonnage
Shipped and Received by Congressional Districts
(Tons in Thousands; Values in Millions of Dollars)

Shipments From	Tons	Value	Top Commodity	Shipments To	Tons	Value	Top Commodity
LA 03	15,841	$ 3,346	Iron/Steel	IN 09	13,358	$ 1,080	Coal
IL 19	14,915	$ 591	Coal	LA 03	11,570	$ 1,580	Grain
KY 01	5,556	$ 398	Coal	KY 01	6,408	$ 549	Coal
IN 08	4,806	$ 685	Grain	OH 06	5,485	$ 916	Iron/Steel
KY 04	3,873	$ 1,078	Coal	KY 04	4,046	$ 773	Coal

Source: U.S. Army Corps of Engineers Waterborne Commerce Statistics

The hyperlinks below enable downloading of the Word file containing the profile text on the lock. To download a file, right click on the hyperlink, then choose "Save Target As" or a similar command to save the file.

Download: John T. Myers Word Document: (text only) (with maps); John T. Myers Traffic State Flows Map: (bitmap) (jpeg); Map of Top 10 Congressional Districts Shipping Commodities through John T. Myers: (bitmap) (jpeg); Map of Top 10 Congressional Districts Receiving Commodities through John T. Myers: (bitmap) (jpeg); John T. Myers Photograph: (jpeg).

Profiles by Industry Sector

Ohio River Basin Industries

Utility Coal Profile

Chemical Profile

Petroleum Profile

Grain Profile

Aggregates Profile

Great Lakes Industries

Coal Profile

Chemical Profile

Iron Ore

Grain Profile

Aggregates Profile

Coal for Electric Power Generation

The Ohio River Basin is a major coal producing and power generating area. Utility companies have historically been attracted to a plentiful supply of water for plant use. The utilities also take advantage of the transportation savings provided by barges and the lock and dam system on the basin's waterways.

American Electric Power's John E. Amos Plant - Kanawha River Mile 39.2

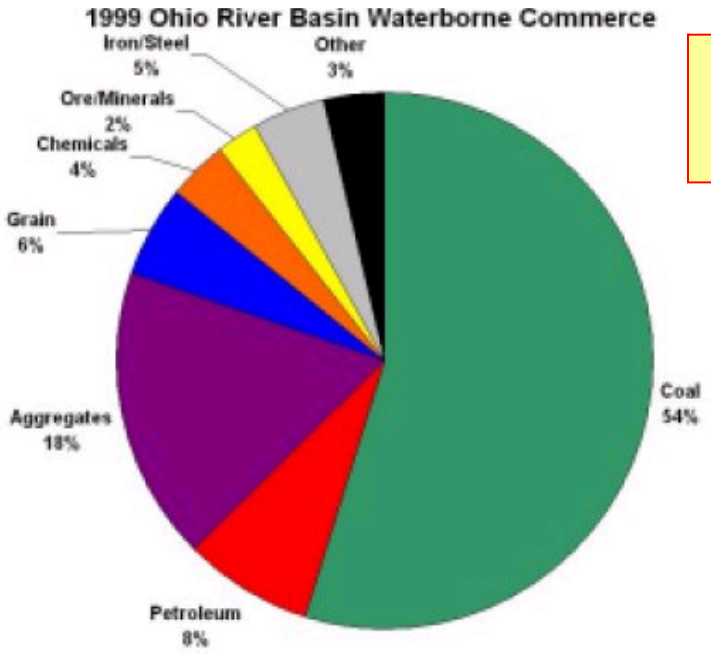
(photo by Tim Smith, Corps of Engineers)

1999 coal shipments on the Ohio River basin's waterways totaled just less than 151 million tons, or about 55% of all barge cargo. Of this amount, more than 120 million tons were destined for coal-fired power plants. In 1999, this coal moved to 49 power plants along the Ohio River and its tributaries (see map), and also to 12 power plants in 8 states outside of the basin. Coal moving in the Ohio River basin destined for power plants had a value of almost $4.6 billion.

Ohio River Basin Barge Traffic 1999 Utility Coal Barge Movements by River					
River	Shipped	Received	Within	Through	Total
Ohio	21,572,027	36,386,928	41,196,653	4,233,620	103,389,228
Tennessee	3,523,572	3,509,065	4,112,752	7,555,805	18,701,194
Monongahela	8,616,906	720,723	6,945,027	-	16,282,656
Big Sandy	15,605,774	0	0	-	15,605,774
Kanawha	12,263,597	0	1,572,393	-	13,836,990
Cumberland	0	7,447,457	0	3,449,071	10,896,528
Mississippi	2,706,193	6,407,740	0	-	9,113,933
Green	1,851,910	996,787	242,964	-	3,091,661
Allegheny	0	628,223	0	-	695,664
source: U.S. Army Corps of Engineers Waterborne Commerce Statistics					

West Virginia shipped the most utility coal by water, moving over 40 million tons of primarily low sulfur coal to 46 plants in 9 states. Kentucky, also a source of low sulfur coal, was next with almost 32 million tons. Ohio's 11 power plants which received coal by barge took in almost 30.5 million tons of coal worth almost $1.2 billion. More of this coal (44%) came from West Virginia than any other state. Indiana was next with almost 17.7 million tons of coal received by 5 power plants, with Illinois supplying two-thirds of the tonnage.

Ohio River Basin Barge Traffic 1999 Utility Coal Shipments and Receipts By State			
State	Shipments	Receipts	
	Tonnage	Plants	Tonnage
Ohio	10,938,344	11	30,525,630
Indiana	1,228,029	5	17,668,583
West Virginia	40,700,403	9	15,981,642
Kentucky	31,668,509	12	15,005,885
Tennessee	0	3	13,089,079
Pennsylvania	14,160,004	7	9,571,455
Alabama	0	2	6,818,854
Illinois	21,462,301		
Source: U.S. Army Corps of Engineers Waterborne Commerce Statistics			



Ohio Basin Characteristics

In 1999, almost 275 million tons of commodities moved on the waterways of the Ohio River Basin. These commodities had a combined value of $32 billion. Coal made up more than 54% of this tonnage, followed by aggregates with 18%.

An analysis of the Ohio River Basin waterborne commerce data shows that 48 million tons of commodities were shipped on the river system out of the basin. A sizeable portion of this tonnage (38%) consisted of coal. Docks in the basin received 46 million tons from outside the Ohio River System, with petroleum products being the largest commodity. Just over 180 million tons moved within the basin; about 71% of this amount consisted of coal. A small amount of traffic moved through the system. Shippers moving commodities by barge in the Ohio River Basin realized savings of over $2 billion compared to other transportation modes.

Ohio River Basin - 1999 Commodities Moved by Barge
(values in millions of dollars)

Commodity	TONNAGE					VALUE
	Shipped	Received	Within	Through	TOTAL	
Coal	18,570,922	3,680,272	128,381,478	191,950	150,824,622	$ 5,804
Petroleum Products	1,012,651	10,816,210	8,874,640	0	20,703,501	$ 3,276
Aggregates	13,002,046	284,465	35,791,408	1,400	49,079,319	$ 2,496
Grain	10,677,662	3,563,374	1,121,149	0	15,362,185	$ 2,810
Chemicals	883,535	8,252,770	1,057,857	2,946	10,197,108	$ 5,796
Ores/Minerals	84,326	6,524,221	85,723	1,457	6,695,727	$ 706
Iron/Steel	2,223,796	8,832,007	1,410,908	29,120	12,495,831	$ 6,874

OHIO RIVER BASIN LOCKS AND DAMS

(tonnage in ktons)

Ohio River

Lock	Mile	1999 Tonnage Upbound	Downbound	Total
Emsworth	6.2	11,857	11,694	23,551
Dashields	13.3	12,991	11,525	24,516
Montgomery	31.7	14,946	11,597	26,544
New Cumberland	54.4	24,430	9,467	33,898
Pike Island	84.2	30,328	10,942	41,271
Hannibal	126.4	27,210	20,039	47,250
Willow Island	161.7	27,903	16,412	44,315
Belleville	203.9	31,930	16,055	47,986
Racine	237.5	31,619	17,040	48,660
Robert C. Byrd	279.2	35,696	20,276	55,972
Greenup	341.0	24,662	45,382	70,044
Meldahl	436.2	21,756	41,154	62,911
Markland	531.5	27,031	27,817	54,849
McAlpine	606.8	32,622	22,207	54,830
Cannelton	720.7	32,960	23,691	56,651
Newburgh	776.1	43,058	21,451	64,509
John T. Myers	846.0	44,633	26,760	71,394
Smithland	918.5	43,638	38,479	82,117
L/D 52	938.9	56,432	38,690	95,122
L/D 53	962.6	46,653	41,160	87,814

Tennessee River

Lock	Mile	1999 Tonnage Upbound	Downbound	Total
Kentucky	22.4	22,162	9,602	31,765
Pickwick Landing	206.7	16,944	3,454	20,398
Wilson	259.4	12,189	3,332	15,522
Wheeler	274.9	12,109	3,235	15,344
Guntersville	349.0	7,668	1,713	9,382
Nickajack	424.7	3,600	1,075	4,676
Chickamauga	471.0	1,572	726	2,298
Watts Bar	529.9	1,166	597	1,764
Ft. Loudoun	602.3	492	144	636

Clinch River

Lock	Mile	1999 Tonnage Upbound	Downbound	Total
Melton Hill	23.1	1,572	726	2,298

Kanawha River

Lock	Mile	1999 Tonnage Upbound	Downbound	Total
Winfield	31.1	4,873	14,647	19,521
Marmet	67.7	1,214	13,514	14,729
London	82.8	86	6,414	6,500

Cumberland River

Lock	Mile	1999 Tonnage Upbound	Downbound	Total
Barkley	30.6	7,965	1,106	9,072
Cheatham	148.7	9,248	294	9,542
Old Hickory	216.2	3,921	11	3,933
Cordell Hull	313.5	*	*	*

Allegheny River

Lock	Mile	1999 Tonnage Upbound	Downbound	Total
Lock & Dam 2	6.7	1,787	823	2,611
Lock & Dam 3	14.5	1,825	742	2,567
Lock & Dam 4	24.2	435	1,177	1,612
Lock & Dam 5	30.4	145	620	766
Lock & Dam 6	36.3	99	61	161
Lock & Dam 7	45.7	79	54	133
Lock & Dam 8	52.6	9	663	673
Lock & Dam 9	62.2	0	0	0

Monongahela River

Lock	Mile	1999 Tonnage Upbound	Downbound	Total
Lock & Dam 2	11.2	8,949	12,175	21,124
Lock & Dam 3	23.8	3,484	14,506	17,991
Lock & Dam 4	41.5	1,415	11,795	13,211
Maxwell	61.2	3,020	10,360	13,380
Grays Landing	82.0	3,052	2,720	5,772
Point Marion	90.8	2,943	2,268	5,211
Morgantown	102.0	66	316	383
Hildebrand	108.0	16	9	26
Opekiska	115.4	19	8	27

Kentucky River

Lock	Mile	1999 Tonnage Upbound	Downbound	Total
Lock & Dam 2	4.0	1,572	726	2,298
Lock & Dam 3	31.0	1,166	597	1,764
Lock & Dam 4	73.0	492	144	636

Monongahela River

Locks and Dams 2, 3 and 4

January

2001

Lock Fact Sheets for Download

Locks and Dam 2; US Steel's Edgar Thompson Works

Locks and Dam 2; US Steel's Edgar Thompson Works

Locations	On the Monongahela River upstream from Pittsburgh, Pennsylvania. Locks and Dam 2, Mile 11.2; Locks and Dam 3, Mile 23.8; Locks and Dam 4, Mile 31.7
Existing Structures	Locks and Dam 2 was built in 1906, with a new main 110' x 720' lock and 56' x 360' auxiliary constructed in 1950. Locks and Dam 3 was built in 1905 with a 56' x 720' main chamber and a 56' x 360' auxiliary. Locks and Dam 4 was completed in 1932 with a 56' x 720' main chamber and a 56' x 360' auxiliary; a new dam was built in 1967.
Annual Tonnage	In 1999, 24.6 million tons of commerce worth almost $1.7 billion transited one or more of these locks. 89% of this traffic was coal. Other important commodities included petroleum products, iron, steel and aggregates.
Projected Traffic Growth	32.8 million tons by the year 2010 and 37.8 million tons by 2030. ***(source: Ohio River Main Stem Systems Study – Interim Feasibility Report)***
Summary of Problems	The dams at L/D 2 and L/D 3 have a fixed-crest and are nearly identical in design. Both are approaching 100 years of service and their deteriorated conditions are a serious concern. Major rehabilitation of the locks at L/D 2 will be needed in about 25 years. The locks at L/D 3 are the same condition and age as the dam. The condition and size of the locks at L/D 4 is also a concern. The dam at L/D 4 is a relatively new structure, gated and in good condition.
Corps of Engineers Action	The dam at L/D 2 will be replaced by a gated dam, and the project will be renamed Braddock Locks and Dam. L/D 3 will be removed. Twin 84' x 720' locks will be built at L/D 4, which will be renamed Charleroi Locks and Dam. Construction began in 1994 and is scheduled for completion in 2008, at a total cost of $705 million.

Source: US Army Corps of Engineers

Download Monongahela Locks 2,3,4 Fact Sheet (MS-Word)

Go To Monongahela River Locks 2,3,4 Detailed Profile

Expanding to Rest of Waterway System

Home Page | Up

- Basin profile
- Illinois
- Iowa
- Minnesota
- Missouri
- Wisconsin

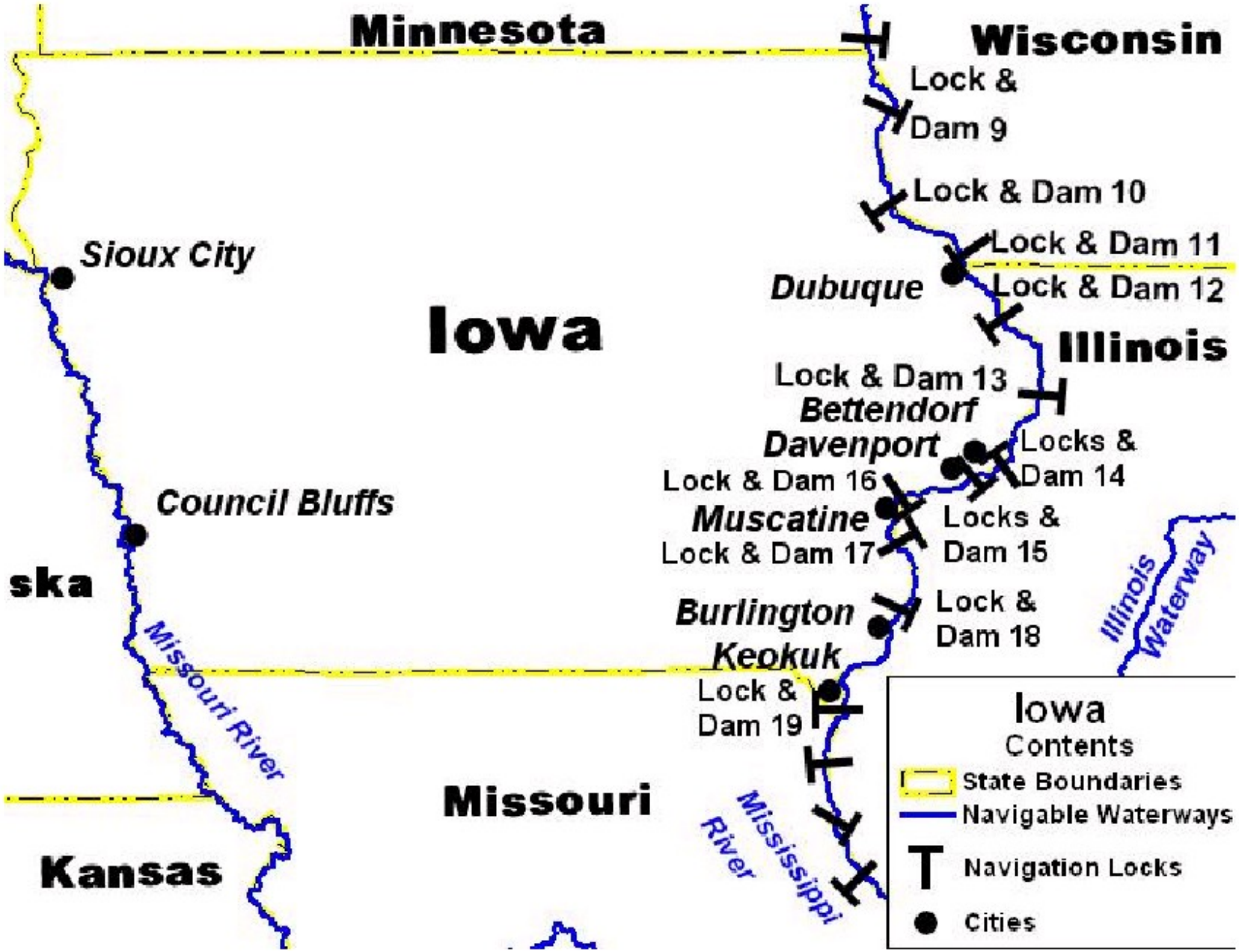
Click on a State

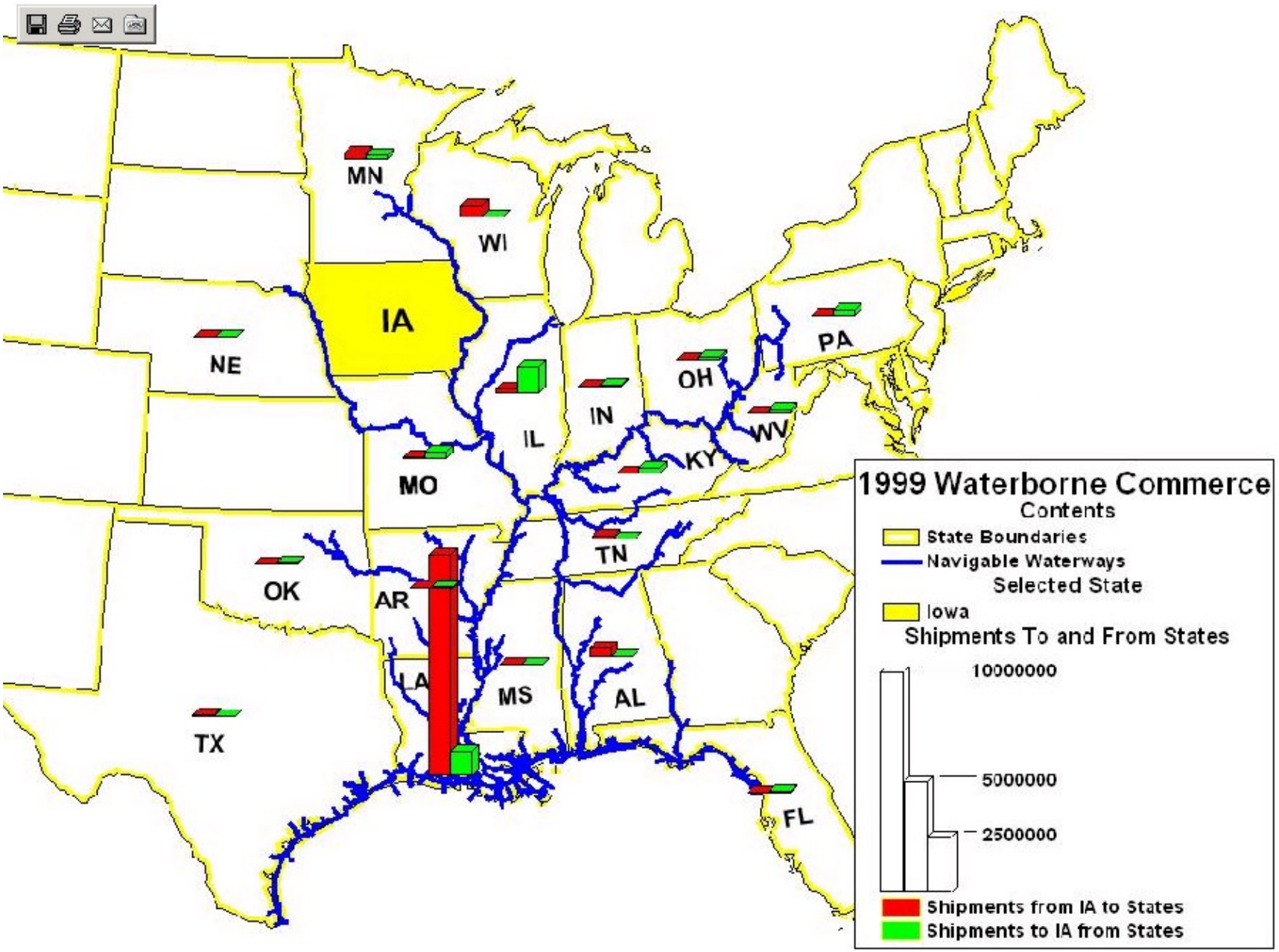
Upper Mississippi / Illinois Basin States

Profiles are currently available for Illinois, Iowa, Minnesota and Wisconsin. Click on a state on the map or use the navigation bar to the left to access a state profile. Please send any comments or suggestions on navigating our site to the e-mail address found at the bottom of the page.

Send comments or requests for more information to Dick Ash at Dicka@Lrh.usace.army.mil

Iowa – Senators Chuck Grassley, Tom Harkin




MN
WI
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1999 Waterborne Commerce
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Petroleum Docks
Aggregate Docks
Grain Docks
Chemical Docks
Iron/Steel Docks
Other Navigation Facilities

Illinois
Indiana
Michigan
Minnesota
New York
Ohio
Pennsylvania
Wisconsin

Click on a State

Great Lakes States

Profiles are currently available on all states labeled on the map. Click on a state on the map or use the navigation bar to the left to access a state profile or to reach the Congressional District profiles for these states. Please send any comments or suggestions on navigating our site to the e-mail address found at the bottom of the page.

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AR
LA
MS
TX

Lower Mississippi & Gulf Coast States

Profiles are currently available on all states labeled on the map. Click on a state on the map or use the navigation bar to the left to access a state profile. Please send any comments or suggestions on navigating our site to the e-mail address found at the bottom of the page.

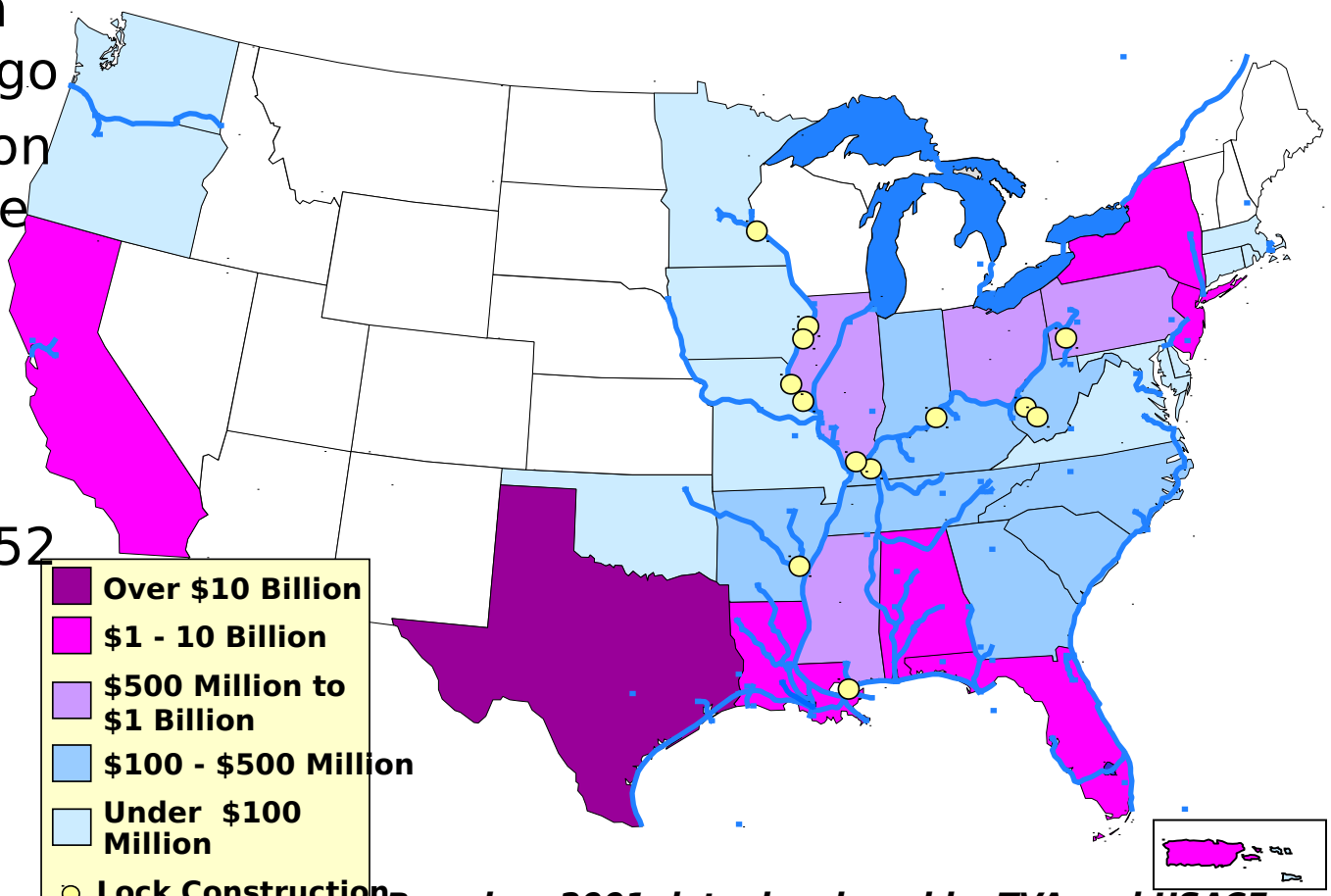
Click on a State

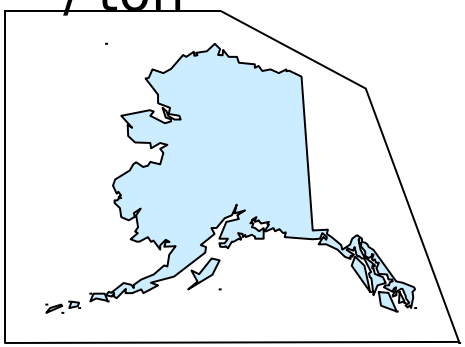
Send comments or requests for more information to Dick Ash at Dicka@Lrh.usace.army.mil

Navigation Information Sharing: Next Steps

- Over $49 billion in domestic cargo
- Nearly $74 billion in foreign trade
- Shipped to or from 34 states or territories
- At average savings of $14.52 / ton*

Value of Waterborne Trade Within Texas and Between Texas and Other States





Based on 2001 data developed by TVA and USACE.

** Savings for inland and intracoastal waterway cargo o*

Texas Waterborne Commerce

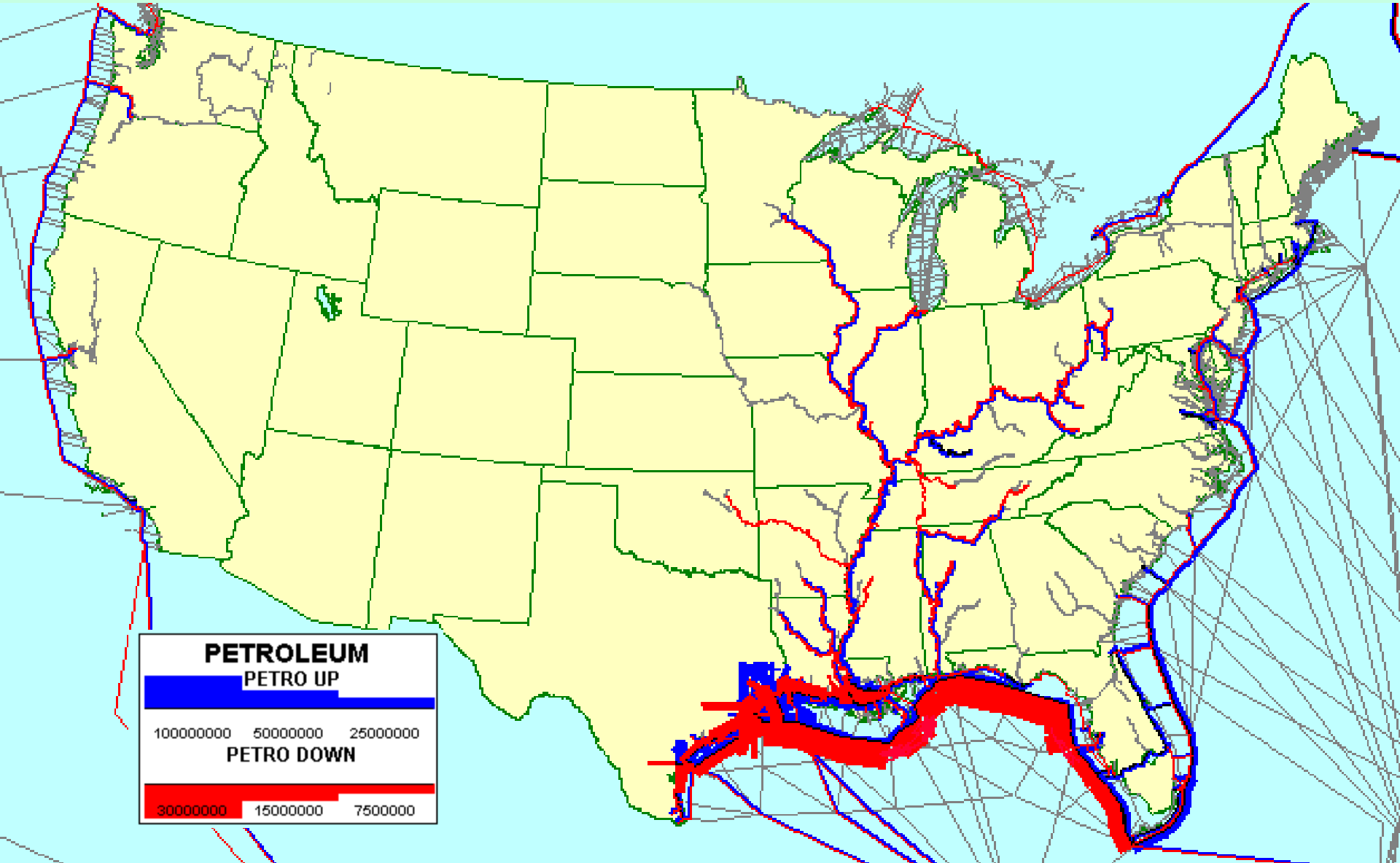
by direction, 2001

Texas Chemical Waterborne Commerce

by direction, 2001

Texas Petroleum Waterborne Commerce

by direction, 2001



Future Developments

- **Update for latest available waterborne commerce data**
- **Expand for Gulf Coast and Columbia-Snake System**
- **Automate data updates and graphics through standard queries and links**
- **Link to *Value to Nation*?**
- **Funding ?**